'Hackfest' highlights Cyber Security Boot Camp

by Francis L. Crumb, Information Directorate

ROME, N.Y. — The Air Force Research Laboratory's Information Directorate and Symantec Corp. combined resources to challenge students of the Advanced Course in Engineering (ACE) summer Cyber Security Boot Camp during a two-day Cyber Security Exercise — or "hackfest."

A national cyber security summer education program presented by Syracuse University at the Rome Research Site, ACE focuses on developing the top students in Air Force, Army and Navy pre-commissioning training programs, in addition to the best among civilian college students, into the next generation of cyber security leaders.

"The 'hackfest,' conducted July 22-23, consisted of two fictitious corporate computer networks that were set up and interconnected over an isolated connection to the Internet. This was carried out with a background network traffic generator which added a significant level of realism to the fictitious corporate scenarios. Students were broken out into two 'company' groups, with each team having two subgroups — red teams for attacking and blue teams for defending their respective networks.

White teams, consisting of AFRL engineers and Symantec personnel, were responsible for observing, setting up, answering questions and managing the exercise.

On the first day, red team members attempted various computer exploits against the opposite company blue team, under guidance from AFRL and Symantec personnel. Blue teams observed and tracked the exploits being attempted, using various security management tools under guidance from other AFRL and Symantec security professionals. Teams reversed roles on the second day to give all students exposure to both offensive and defensive operations in a network security environment.

"The primary benefit of this exercise was that students were exposed to many of today's front line network security tools used in commercial and Department of Defense enterprises," said Mr. Scheiderich. "In addition, they were given the opportunity to test known exploits and exercise computer attacks under the guidance of trained security professionals and researchers. Students had the opportunity for hands-on experience, as well as the benefit of the many years of operational experience that the professionals brought to the table."

ACE was created through a public-private partnership including the Information Directorate, Syracuse University, the CASE Center of the New York State Office of Science Technology and Academic Research, the Griffiss Institute on Information Assurance and several corporations. The boot camp is a four-credit course offered through Syracuse University's L.C. Smith College of Engineering and Computer Science.

In its second year at the AFRL Rome Research Site, the ACE program has attracted students from 25 colleges in 17 states. In addition to ROTC, the students include fellowship recipients from the National Science Foundation Scholarship for Service Cyber Corps program, cadets from the Air Force Junior ROTC, and civilian scientists and engineers committed to careers in cyber security. The educators include faculty from Syracuse University, the U.S. Military Academy at West Point and the State University of New York Institute of Technology, in addition to experts from the Air Force Research Laboratory and industry. @